

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the Application.

Listing of Claims:

Claims 1-21 (Canceled).

Claim 22. (Previously presented) A device for communicatively coupling a packet network to at least one communication network having a different information format, the device comprising:

- a packet interface for communicating information via the packet network;

- at least one network interface, each of the at least one network interface for communicating information via an associated one of the at least one communication network in an associated format;

- at least one converter for selectively converting information received by the packet interface for transmission via one of the at least one network interface in the associated format, and for selectively converting for transmission via the packet interface information received from the one of the at least one network interface in the associated format; and

- a controller for receiving, from either of the packet network and the at least one network interface, signaling information that initiates a call connection between the packet network and one of the at least one communication network, the controller adapting the operation of the converter and establishing the call connection between the packet network and the one of the at least one communication network, based upon the received signaling information and a cross-reference between an address on the at least one communication network and an associated address on the packet network.

Claim 23. (Previously presented) The device of claim 22 wherein the packet interface is compliant with an Internet protocol (IP).

Claim 24. (Previously presented) The device of claim 23 wherein the Internet protocol is transport control protocol (TCP)/Internet protocol (IP).

Claim 25. (Previously presented) The device of claim 22 wherein the information communicated via the packet interface comprises digitized voice information.

Claim 26. (Previously presented) The device of claim 25 wherein at least a portion of the information communicated via the packet interface is unrelated to the communication of digitized voice information.

Claim 27. (Previously presented) The device of claim 22 wherein the at least one network interface provides the functionality of a conventional telephone switching network interface.

Claim 28. (Previously presented) The device of claim 27 wherein the at least one network interface provides at least one of a battery supply, over-voltage protection, ringing current, tone generation, tone detection, two wire to four wire conversion, and test functionality.

Claim 29. (Previously presented) The device of claim 27 wherein the at least one converter converts digitized voice information into an analog voice signal, and an analog voice signal into digitized voice information.

Claim 30. (Previously presented) The device of claim 29 wherein the at least one converter buffers digitized voice information for a period of time to minimize gaps in an analog voice signal.

Claim 31. (Previously presented) The device of claim 27 wherein the at least one network interface is a digital interface.

Claim 32. (Previously presented) The device of claim 22 wherein the at least one network interface is a second packet interface.

Claim 33. (Previously presented) The device of claim 22 wherein the at least one converter compensates for a difference in bit rate between interfaces.

Claim 34. (Previously presented) The device of claim 22 wherein the at least one converter adapts information received via the packet interface into analog modem signals for transmission via the at least one network interface, and adapts analog modem signals received via the at least one network interface into information for transmission via the packet interface.

Claim 35. (Previously presented) A method for communicatively coupling a packet network to at least one communication network having a different information format, the method comprising:

receiving from either of the packet network and the at least one communication network signaling information that initiates a call connection between the packet network and one of the at least one communication network;

establishing the call connection between the packet network and the one of the at least one communication network based upon the received signaling information and a cross-reference between an address on the at least one communication network and an associated address on the packet network;

receiving information from the packet network in a first information format;
converting the received information from the first information format to a second information format based upon the received signaling information;
sending the converted information via the one of the at least one communication network;
accepting information from the one of the at least one communication network in the second information format;
transforming the accepted information from the second information format to the first information format based upon the received signaling information; and
transmitting the transformed information via the packet network.

Claim 36. (Previously presented) The method of claim 35 wherein the packet network is compliant with an Internet protocol (IP).

Claim 37. (Previously presented) The method of claim 36 wherein the Internet Protocol is compliant with transmission control protocol (TCP)/ Internet protocol (IP).

Claim 38. (Previously presented) The method of claim 35 wherein the information communicated via the packet network comprises digitized voice information.

Claim 39. (Previously presented) The method of claim 35 wherein the information communicated via the packet network comprises data.

Claim 40. (Previously presented) The method of claim 39 wherein at least a portion of the data is unrelated to the communication of digitized voice information.

Claim 41. (Previously presented) The method of claim 35 wherein the at least one communication network is a second packet network.

Claim 42. (Previously presented) The method of claim 41 wherein the second packet network is compliant with an Internet protocol (IP).

Claim 43. (Previously presented) The method of claim 42 wherein the Internet Protocol is compliant with transmission control protocol (TCP)/ Internet protocol (IP).

Claim 44. (Previously presented) The method of claim 35 wherein the at least one communication network comprises a conventional telephone switching network.

Claim 45. (Previously presented) The method of claim 44 wherein the second information format is an analog format.

Claim 46. (Previously presented) The method of claim 44 wherein one of the second information format is a modem signal.

Claim 47. (Previously presented) The method of claim 44 wherein the second information format is a digital format.

Claim 48. (Previously presented) The method of claim 35 wherein the converting comprises converting digitized voice information into an analog voice signal.

Claim 49. (Previously presented) The method of claim 35 wherein the transforming comprises converting an analog voice signal into digitized voice information.

Claim 50. (Previously presented) The method of claim 35 wherein the converting comprises buffering digitized voice information for a period of time to minimize gaps in an analog voice signal.

Claim 51. (Previously presented) A system that couples a packet network to at least one communication network having a different information format, the system comprising:

at least one processor operably coupled to the packet network, the at least one processor operating to, at least:

receive from either of the packet network and the at least one communication network signaling information that initiates a call connection between the packet network and one of the at least one communication network;

establish a call connection between the packet network and the at least one communication network based upon the received signaling information and a cross-reference between an address on the at least one communication network and an associated address on the packet network;

receive information from the packet network in a first information format;

initiate conversion of the received information from the first information format to a second information format based upon the received signaling information;

send the converted information via the at least one communication network;

accept information from the at least one communication network in the second information format;

initiate transformation of the accepted information from the second information format to the first information format based upon the received signaling information; and

transmit the transformed information via the packet network.

Claim 52. (Previously presented) The system of claim 51 wherein the packet network is compliant with an Internet protocol (IP).

Claim 53. (Previously presented) The system of claim 52 wherein the Internet Protocol is compliant with transmission control protocol (TCP)/ Internet protocol (IP).

Claim 54. (Previously presented) The system of claim 51 wherein the information communicated via the packet network comprises digitized voice information.

Claim 55. (Previously presented) The system of claim 51 wherein the information communicated via the packet network comprises data.

Claim 56. (Previously presented) The system of claim 55 wherein at least a portion of the data is unrelated to the communication of digitized voice information.

Claim 57. (Previously presented) The system of claim 51 wherein the at least one communication network is a second packet network.

Claim 58. (Previously presented) The method of claim 57 wherein the second packet network is compliant with an Internet protocol (IP).

Claim 59. (Previously presented) The system of claim 58 wherein the Internet Protocol is compliant with transmission control protocol (TCP)/ Internet protocol (IP).

Claim 60. (Previously presented) The system of claim 51 wherein the at least one communication network comprises a conventional telephone switching network.

Claim 61. (Previously presented) The system of claim 60 wherein the second information format is an analog format.

Claim 62. (Previously presented) The system of claim 60 wherein one of the second information format is a modem signal.

Claim 63. (Previously presented) The system of claim 60 wherein the second information format is a digital format.

Claim 64. (Previously presented) The system of claim 51 wherein the converting comprises converting digitized voice information into an analog voice signal.

Claim 65. (Previously presented) The system of claim 51 wherein the transforming comprises converting an analog voice signal into digitized voice information.

Claim 66. (Previously presented) The system of claim 51 wherein the converting comprises buffering digitized voice information for a period of time to minimize gaps in an analog voice signal.

Claim 67. (Previously presented) The device of claim 22 wherein the address on the at least one communication network comprises a telephone number.

Claim 68. (Previously presented) The method of claim 35 wherein the address on the at least one communication network comprises a telephone number.

Claim 69. (Previously presented) The system of claim 51 wherein the address on the at least one communication network comprises a telephone number.